James River through Richmond
2008

The 9-mile, non-tidal stretch of the James River that flows through Richmond (known locally as the Fall-Line section) is a unique portion of the James that provides numerous recreational opportunities. The Fall-Line section separates the non-tidal and tidal portions of the James River and contains various habitat types including rocky outcrops, large runs, deep pools, shallow riffles, and intense rapids. Because of these unique characteristics, the Fall-Line section is renowned for kayaking, canoeing, and has traditionally supported popular sport fisheries for sunfish, catfish, and trophy smallmouth bass. In November 2007, the fish community within the Fall Line section was sampled at six locations between Bosher's Dam and the 14th Street Bridge (Figure 1). This report summarizes the findings from the 2007 survey and informs anglers on what they can expect to catch from this section of the James River.

The Fall-Line section contains an exceptional diversity of fish species with a total of 23 different species collected in 2007 (Table 1). Smallmouth bass was the most abundant species collected throughout the Fall-Line section, but their catch rate was low when compared to historical averages for the river. At this time, the lower observed catch rate is expected due to poor reproduction in past years. Annual sampling efforts in the Upper and Middle James River indicate that there was poor smallmouth bass reproduction/recruitment throughout the late 1990's and early 2000's due to extremes in river flows during the spring and early summer months. The trend in past recruitment failures is echoed in the adult smallmouth bass population throughout the Fall-Line section. The vast majority of smallmouth bass collected were small (< 14 inches, figure 2) and young (< 3 years of age, figure 3), with catch rates of fish larger than 14 inches being expectedly low. Even with the low numbers of large fish present, reproduction of smallmouth bass has been average to excellent over the past few years. In the 2007 Fall-Line sample, good numbers of bass from the 2005 and 2006 year classes were present. Additionally, smallmouth bass reproduction appears to be slightly above average for 2007. The abundance of smaller fish should offer good fishing success for anglers interested in catching an Old-Dominion smallmouth.

Even though the number of large smallmouth bass is low, there are still some larger fish available for anglers. There is even the potential for anglers to catch that often coveted trophy smallmouth bass within the Fall-Line section. The largest smallmouth bass collected was approximately 20 inches and weighted just over 4 lbs. Age and growth analysis indicates that smallmouth bass from the Fall-Line section are out-performing populations in the Upper and Middle James in terms of growth. This could be a function of the low population size, potentially decreasing competition for food resources, or could be a function of superior productivity in this section of river. Higher growth rates are a good indication that the adult population will rebound more rapidly in this section. Anglers should start seeing an increase in the numbers of fish in the 12-16 inch length group in the next few years. Additionally, the 14-22 inch protective slot limit for smallmouth bass should help to protect these fish from harvest.

Smallmouth bass were present at all sampling sites, so anglers can expect to catch them throughout the Fall-Line section. Anglers preparing to journey after smallmouth bass should concentrate efforts on shallow to mid-depth riffles or areas near the bank with some type of structure. Diet analysis of smallmouth bass indicated that the majority of smallmouth bass feed on shiners and crayfish. Any lures that mimics these diet items should be a must for smallmouth bass anglers of the James River.

Catfish populations were exceptionally good within the Fall-Line section. At certain locations, catch rates for flathead and blue catfish were some of the highest found throughout the non-tidal portion of the James River. There is a small channel catfish population, but channels are not nearly as abundant as in the Upper and Middle James. The blue and flathead populations have a remarkably high number of big fish available to anglers. The average sized blue catfish collected was 25 inches and weighted over 5 lbs while the average flathead catfish was 24 inches and weighted greater than 6 lbs. Additionally, numerous blue and flathead catfish over 30 inches and 20 lbs. were collected throughout the Fall-Line section. Anglers seeking to catch catfish should concentrate efforts on relatively deep water (> 6ft deep) or waters adjacent to deep holes. The deep pockets above the Pony Pasture recreation area and the deep run just below the Wetlands recreational area (river section that flows past Willow Oaks Country Club) are great places for catfish anglers to wet a line. Anglers should try using live bait for flathead and cut or stink-bait for blue catfish.

Panfish populations are somewhat down in the Fall-Line stretch of the James. Catch rates for panfish were low when compared to the Upper and Middle James. Additionally, all panfish collected were small (≤ 9 in.), with approximately 90% of the panfish collected less than 7 inches. The most abundant panfish species collected was redbreast sunfish followed by bluegill and rock bass (redeyes). Panfish were caught in all locations throughout the Fall-Line section, and anglers targeting these species should concentrate their efforts around bank structure or slack water adjacent to rocky shoals and outcrops. Small twister tailed grubs, live crickets, and worms are outstanding baits for any of the panfish species.

There is a small largemouth bass population in the Fall-Line section that could attract some anglers. Most of the largemouth bass are small (≤ 12 in.) and suitable habitat limits the extrapolation of their population throughout the Fall-Line section. Anglers searching for largemouth bass in this stretch of the river should fish in locations with slow flows that have some type of vegetation or bank structure.

Some other fisheries worth mentioning in the Fall-Line section are the seasonal fisheries for striped bass and the American shad. Most of the year these species inhabit marine environments, but during the spring and early summer months they will make spawning runs up the James River. Due to the timing of the survey, none of these species were collected in our samples. Both of these species can become very abundant in the Fall-Line section of the James from March-June. These species has strict regulations administered by the Virginia Department of Game and Inland Fisheries (VDGIF) and the Virginia Marine Resources Commission (VMRC). If you plan to fish the river during the spawning run of these species, be aware of and abide by the current regulations for these species. You can obtain current regulations at the

VDGIF website (http://www.dgif.state.va.us/) and at the VMRC website (http://www.mrc.state.va.us/).

The Fall-Line section of the James can provide a rewarding trip for any angler but caution is warranted when fishing this stretch of river. The Fall-Line section is prone to flash flooding when there have been heavy rains in head waters of the James River. Furthermore, boaters need to be conscious of the technical rapids within the Fall-Line section. Before journeying out, anglers should be aware of the current river conditions and boaters need to become familiar with the more technical rapids. To get up-to-date information on river flows and maps of the Fall-Line section, contact the James River Parks System at (804) 646-8911 or visit their website at http://www.jamesriverpark.org/.

For more information on the James River through Richmond, please contact:

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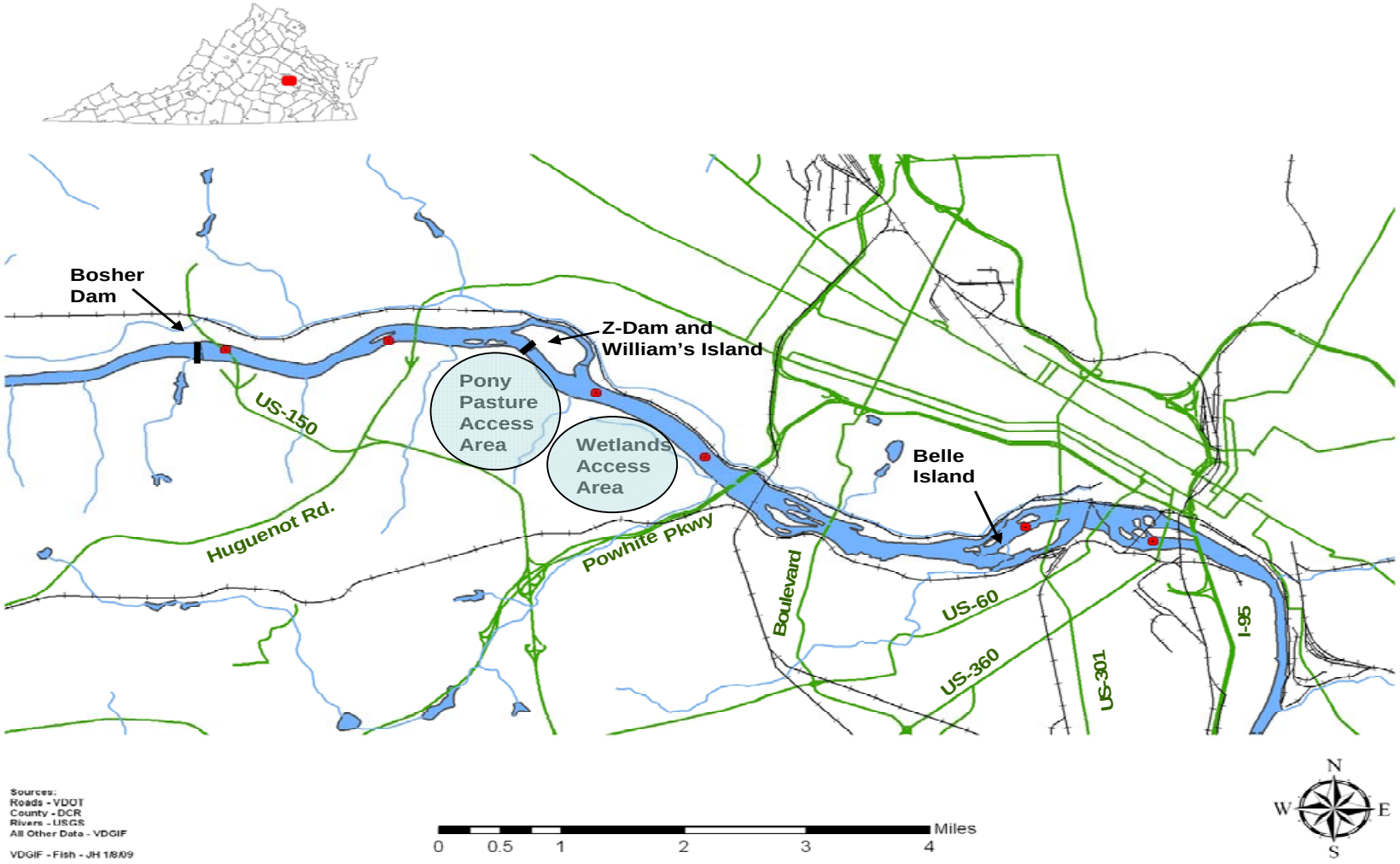

Figure 1. Map of the James River through Richmond (Fall-Line section). Red Dots indicate fish sampling location during November, 2007.

Table 1. Species account and catch rates for fish collected throughout the Fall-Line section of the James River, November 2007.

Species	Scientific Name	Number Collected	Relative Abundance (fish/hour electrofishing)
American Eel	*Anguilla rostrata*	Collected but not counted	
Black Jumprock	*Scartomyzon cervinus*	4	0.7
Blue Catfish	*Ictalurus furcatus*	42	6.9
Bluegill	*Lepomis macrochirus*	28	4.6
Bluespotted Sunfish	*Enneacanthus gloriosus*	1	0.2
Bowfin	*Amia calva*	4	0.7
Bull Chub	*Nocomis raneyi*	41	6.8
Channel Catfish	*Ictalurus punctatus*	14	2.3
Common Carp	*Cyprinus carpio*	Collected but not counted	
Creek Chubsucker	*Erimyzon oblongus*	1	0.2
Flathead Catfish	*Pylodictis olivaris*	17	2.8
Green Sunfish	*Lepomis cyanellus*	5	0.8
Largemouth Bass	*Micropterus salmoides*	28	4.6
Longnose Gar	*Lepisosteus osseus*	6	1.0
Northern Hog Sucker	*Hypentelium nigricans*	67	11.1
Quillback	*Carpiodes cyprinus*	2	0.3
Redbreast Sunfish	*Lepomis auritis*	84	13.9
Redear Sunfish	*Lepomis microlophus*	5	0.8
Rock Bass	*Ambloplites rupestris*	10	1.7
Shield Darter	*Percina peltata*	1	0.2
Shorthead Redhorse	*Moxostoma macrolepidotum*	25	4.1
Smallmouth Bass	*Micropterus dolomieu*	174	28.7
Spottail Shiner	*Notropis hudsonius*	Collected but not counted	

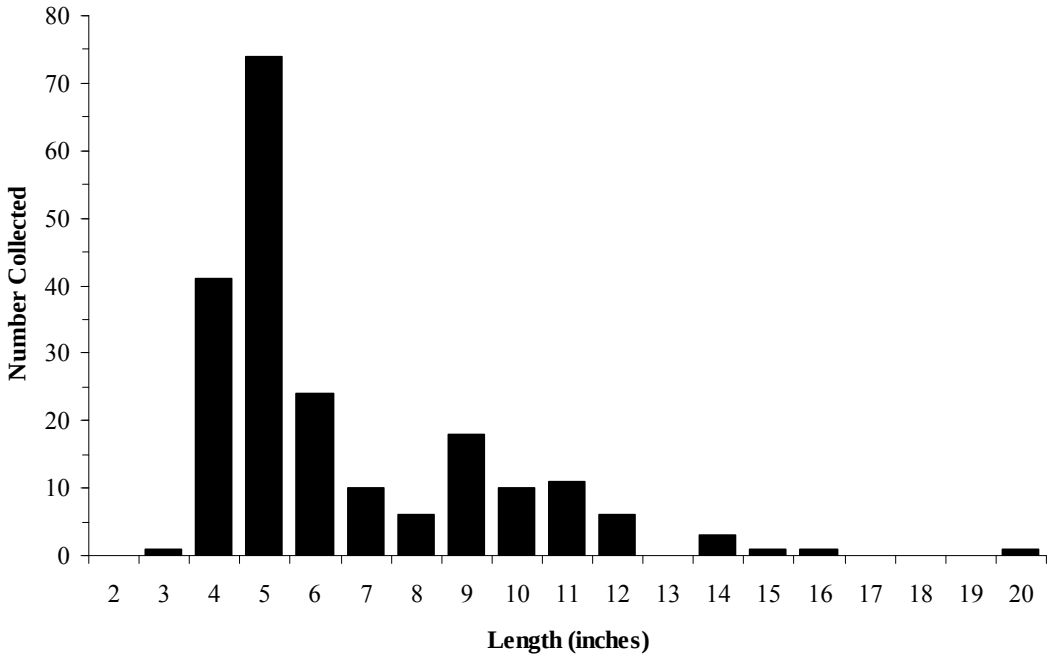

Figure 2. Length distribution of smallmouth bass collected throughout the Fall-Line section of the James River, November 2007.

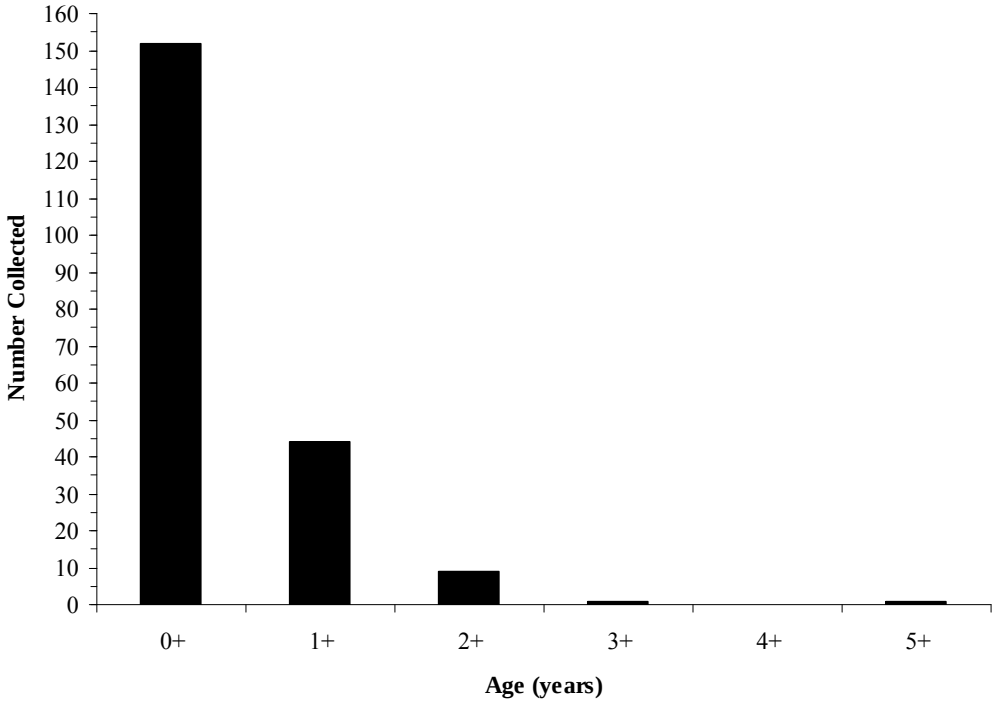

Figure 3. Age distribution of smallmouth bass collected throughout the Fall-Line Section of the James River, November 2007.